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JUN 16 2004

RICHARD W. WIEKING  
CLERK, U.S. DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

IXYS CORPORATION,

Plaintiff,

v.

ADVANCED POWER TECHNOLOGY, INC.,

Defendant.

AND RELATED COUNTERCLAIMS.

No. C 02-03942 MHP

**MEMORANDUM AND ORDER RE:  
DEFENDANT'S MOTION FOR PARTIAL  
SUMMARY JUDGMENT LIMITING  
REMEDIES BASED ON LACHES**

Plaintiff IXYS Corporation ("IXYS") filed this action against defendant Advanced Power Technology, Inc. ("APT"), alleging infringement of two U.S. patents, numbered 5,486,715 (the "715 patent") and 5,801,419 (the "419 patent"), that it holds on an improved design for power MOSFET devices. APT has counterclaimed for infringement of its patents, numbered 5,283,202 (the "202 patent") and 5,262,336 (the "336 patent"), which teach a design for diodes with lifetime control. Now before the court is APT's motion seeking partial summary judgment that IXYS's remedies are limited due to the equitable doctrine of laches. After having considered the parties' arguments and submissions, and for the reasons set forth below, the court rules as follows.

**BACKGROUND**<sup>1</sup>

IXYS and APT have been active competitors in the market for power MOSFETS and other semiconductor devices for over a decade. APT has been producing dual-metal power MOSFETS for sale since at least January 1991, when it began marketing the APT 208, and a second incarnation of the product (known internally as the "APT 208x") was sold from late 1991 until late 2001. Tsang

1 Dec. to APT's Motion for Summary Judgment of Invalidity for Anticipation ¶ 13. APT began  
2 selling its POWERMOS V devices in early 1997, its POWERMOS VI devices in 1999, and its  
3 POWERMOS VII devices in 2000. See generally Def. Mot., Exh. 9. IXYS's '715 patent was issued  
4 by the patent office on January 23, 1996, and the '419 patent was issued more than two years later on  
5 September 1, 1998. IXYS filed this action on August 15, 2002, accusing of infringement a panoply  
6 of APT products, viz., "(a) any and all Power MOS 7® products or Power MOS V® (Generation 5)  
7 products with dual-layer metallization manufactured, used, sold, or offered for sale by APT on or  
8 after August 15, 1996, and (b) any and all products manufactured, used, sold, or offered for sale by  
9 APT on or after August 15, 1996 that are designed in substantially the same way, or function in  
10 substantially the same way, as APT 5018BLL [a Power MOS 7™ MOSFET]." Feeman Dec. in  
11 Support of Def. Mot. for Summary Judgment of Invalidity for Anticipation, Exh. 4, at 2 (Pl.  
12 Disclosure of Asserted Claims and Preliminary Infringement Contentions).

#### 13 14 LEGAL STANDARD

##### 15 I. Summary Judgment

16 Summary judgment is proper when the pleadings, discovery and affidavits show that there is  
17 "no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter  
18 of law." Fed. R. Civ. P. 56(c). Material facts are those which may affect the outcome of the case.  
19 Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). A dispute as to a material fact is  
20 genuine if there is sufficient evidence for a reasonable jury to return a verdict for the nonmoving  
21 party. Id. The moving party for summary judgment bears the burden of identifying those portions of  
22 the pleadings, discovery and affidavits that demonstrate the absence of a genuine issue of material  
23 fact. Celotex Corp. v. Cattrett, 477 U.S. 317, 323 (1986). On an issue for which the opposing party  
24 will have the burden of proof at trial, the moving party need only point out "that there is an absence  
25 of evidence to support the nonmoving party's case." Id.

26  
27 Once the moving party meets its initial burden, the nonmoving party must go beyond the  
28 pleadings and, by its own affidavits or discovery, "set forth specific facts showing that there is a  
genuine issue for trial." Fed. R. Civ. P. 56(e). Mere allegations or denials do not defeat a moving

1 party's allegations. Id.; see also Gasaway v. Northwestern Mut. Life Ins. Co., 26 F.3d 957, 960 (9th  
2 Cir. 1994). The court may not make credibility determinations, Anderson, 477 U.S. at 249, and  
3 inferences to be drawn from the facts must be viewed in the light most favorable to the party  
4 opposing the motion. Masson v. New Yorker Magazine, 501 U.S. 496, 520 (1991).

5 The Federal Circuit applies the same standard for summary judgment. See, e.g., Southwall  
6 Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1575 (Fed. Cir. 1995); Barmag Barmer  
7 Maschinenfabrik AG v. Murata Machinery, Ltd., 731 F.2d 831, 835 (Fed. Cir. 1984). The Federal  
8 Circuit has repeatedly held that summary judgment is as appropriate in patent cases as in any other  
9 type of case. See, e.g., Paragon Podiatry Lab., Inc. v. KLM Lab., Inc., 984 F.2d 1182, 1190 (Fed.  
10 Cir. 1993); Hodosh v. Block Drug Co., 786 F.2d 1136, 1141 (Fed. Cir. 1986).

## 11 II. Laches

12 A defendant in a suit for patent infringement may bring a defense of laches when the plaintiff  
13 has acted with "neglect or delay in bringing suit to remedy an alleged wrong, which taken together  
14 with lapse of time and other circumstances, causes prejudice to the adverse party and operates as an  
15 equitable bar." A.C. Aukerman Co. v. R.L. Chaides Constr. Co., 960 F.2d 1020, 1029-30 (Fed. Cir.  
16 1992) (*en banc*). In order to invoke a defense of laches, "a defendant has the burden to prove two  
17 factors:  
18  
19

- 20 1. the plaintiff delayed filing suit for an unreasonable and inexcusable length of time  
21 from the time the plaintiff knew or reasonably should have known of its claim against  
22 the defendant, and
- 23 2. the delay operated to the prejudice or injury of the defendant."

24 Id. at 1032. "The period of delay is measured from the time the plaintiff knew or reasonably should  
25 have known of the defendant's alleged infringing activities to the date of suit," but does not begin to  
26 run before the patent is issued. Id.

27 When evaluating a defendant's laches defense, a court must consider the particular facts and  
28 circumstances of the case at hand and "weigh the equities of the parties." Id. "The length of time  
which may be deemed unreasonable has no fixed boundaries but rather depends on the  
circumstances." Id. (citations omitted). However, a delay of at least six years before bringing suit

1 raises a presumption that such a delay was both unreasonable and prejudicial to the defendant.  
2 Adelberg Lab., Inc. v. Miles, Inc., 921 F.2d 1267, 1271 (Fed. Cir. 1990).

3  
4 DISCUSSION

5 I. Determination of the Beginning Date of the “Laches Period”

6 A. Constructive and Actual Knowledge of APT’s Infringing Activities

7 As an initial matter, this court must determine the date—after the filing of the relevant patent  
8 or patents—on which “plaintiff knew or reasonably should have known of the defendant’s alleged  
9 infringing activities to the date of suit.” Aukerman, 960 F.2d at 1032. As competitors within the  
10 same field, APT and IXYS presumably maintained at least a passing familiarity with each others’  
11 products and progress. IXYS admits to collecting, as a regular practice, data sheets describing APT  
12 devices, presumably including data sheets describing APT’s POWERMOS V line. Helou Dec., Exh.  
13 4, at 204; id. at Exh. 5, at 3155-3160 (datasheets of POWERMOS V products). Also in circulation  
14 were various publications and articles describing the technical specifications of APT’s products. See  
15 id. at Exhs. 7 & 8.

16 It is undisputed that APT has been manufacturing dual-metal MOSFET devices that include  
17 an aluminum layer overlying the gate polysilicon layer (and otherwise bear a strong resemblance to  
18 the invention described in IXYS’s patents) since long before 1996. In addition to its general  
19 awareness of these products, it appears that IXYS was testing APT’s devices—at least for the  
20 purpose of characterizing them—as early as 1992. See id. at Exh. 5, Sub-Part 4, at 6177-78 & 6181;  
21 id. at Exh. 6, at 16-18. However, it is this court’s understanding of the technology involved in these  
22 devices that it is one matter to test the operating characteristics of a power MOSFET and quite  
23 another to actually slice the device open and examine its component structure under a microscope. It  
24 may well be that conducting such additional tests as a matter of course is a technologically simple  
25 and economically feasible endeavor. Yet APT has not offered any evidence to indicate as such. The  
26 facts available upon the record regarding IXYS’s pre-1998 behavior do not demonstrate that IXYS  
27 had actual knowledge of APT’s development of potentially infringing devices, and they do not  
28 demonstrate that IXYS was in the habit of conducting the type of tests that might reveal APT’s

1 alleged infringement. Cf. Wanless v. Gen. Elec. Co., 148 F.3d 1334, 1336 (Fed. Cir. 1998) (plaintiff  
2 had conducted the type of tests necessary to determine whether defendant's products infringed more  
3 than one decade before filing claims of infringement, and these tests were "both easy and  
4 inexpensive" to perform). In the absence of such evidence, this court is loath to impose upon IXYS  
5 a requirement to "police the industry" in a fashion that it had not already undertaken. Wanlass v.  
6 Fedders Corp., 145 F.3d 1461, 1465 (Fed. Cir. 1998) ("[P]olicing the industry would require testing  
7 of an unknown number of models. Imposing a duty upon Wanlass to monitor the air-conditioning  
8 industry by periodically testing all others' products, therefore, would be unreasonable."). The court  
9 finds that there is a triable issue of fact regarding whether IXYS had actual or constructive  
10 knowledge before 1998 that APT might be infringing its patents.

11 In 1998, however, IXYS's practice appears to have changed. IXYS documents dated January  
12 29, 1998, show that IXYS had conducted some additional tests of an APT product or products  
13 (possibly the 114, a device that IXYS has not accused of infringement), including analyzing (at  
14 minimum) the layout and packaging of the devices; one of the documents even references APT's  
15 "second metal." See id. at 5233-5235. Dr. Zommer admits that these documents reflect IXYS's  
16 efforts to analyze APT's products and acknowledges that this analysis revealed that APT's devices  
17 included a "second metal." Zommer Dec. ¶ 14.<sup>2</sup> IXYS's acquisition of this level of structural  
18 information regarding APT's device or devices indicates that IXYS had examined the product in  
19 sufficient detail to inform itself regarding whether the APT devices possessed the elements of  
20 IXYS's patented inventions. Irrespective of whether IXYS believed that this first device infringed  
21 (and it almost surely came close, at the very least), by January 1998 IXYS had proven its willingness  
22 and ability to conduct the type of tests necessary to determine whether other APT products infringed.  
23 The fact that such an analysis was not undertaken with the intent of ascertaining whether APT's  
24 products infringed (see id.)—and the fact that the analysis was not necessarily conducted upon a  
25 product now accused of infringement—is immaterial; after these experiments, IXYS almost surely  
26 had actual knowledge (and unquestionably had constructive knowledge) that APT's products  
27 allegedly infringed its patents. Any further doubts on IXYS's part could (and should) have been  
28 resolved through additional testing; IXYS has offered this court no reason to believe that in 1998

1 such testing would have been technologically or economically infeasible. IXYS's claims at oral  
2 argument that the 1998 analyses—which were not necessarily conducted with the intention of  
3 determining infringement—did not confer upon IXYS the requisite knowledge and notice of  
4 infringement are simply unpersuasive.

5         Despite these tests, IXYS argues that it had no reason to believe that APT was infringing its  
6 products until September 2000, when APT introduced its MOS VII line of devices. The important  
7 distinction, according to IXYS, is that APT's pre-1997 devices (including the MOS IV line) did not  
8 employ source metal overlying the gate structures and thus did not infringe the IXYS patents. See  
9 Zommer Dec. ¶ 8. IXYS was not alerted to possible infringement in 1997, when APT released the  
10 MOS V line of products, because the press releases describing those products did not indicate that  
11 APT's construction modes deviated in any significant respect from its previous devices. See, e.g.,  
12 id. at Exh. 10. By contrast, explains IXYS, the press releases describing APT's MOS VII devices  
13 mentioned "APT's patented metal on polysilicon gate structure" and reduced input capacitance. Id.;  
14 see also Pl. Opp., at 3 ("Notably, APT's March 18, 1997 press release contained no similar  
15 reference.").

16         However, the September 2000 APT press releases—which IXYS labels as the source of its  
17 belief that APT was manufacturing infringing devices—contain no mention whatsoever regarding  
18 whether the source metal overlies the gate areas. See Zommer Dec., Exh. 11. Moreover, the feature  
19 that these press releases *do* describe, viz., the metal-on-polysilicon gate structure, was present in  
20 documents describing APT products as far back as 1988. See Zommer Dec., Exh. 4, at 2, Figure 2  
21 (diagram showing APT's POWERMOS IV device, which includes a layer of aluminum gate metal  
22 overlying a layer labeled "poly," which itself overlies a layer of gate oxide insulator). As far as the  
23 court can discern, there is no meaningful distinction between APT MOS VII press releases and APT-  
24 related material previously in the public domain. Consequently, IXYS's claim to have realized that  
25 APT might infringe its patents only upon the publication of the MOS VII releases is not logically  
26 tenable. The court thus finds that IXYS knew or should have known that APT was engaging in  
27 allegedly infringing conduct no later than January 29, 1998. There exists no genuine issue of  
28 material fact regarding IXYS's knowledge on that date. Anderson, 477 U.S. at 248.

1 B. IXYS's Related Patents

2 IXYS's '419 patent issued in September 1998, approximately seven months after IXYS  
3 gained actual or constructive knowledge that APT was engaging in allegedly infringing conduct.  
4 Under very similar circumstances, the Federal Circuit has held that it was not unreasonable for a  
5 plaintiff to wait until the issuance of a related patent before filing a suit of infringement and tolled  
6 the laches period accordingly such that it began only with the issuance of the second patent.  
7 See Meyer v. Asics Corp., 974 F.2d 1304, 1307 (Fed. Cir. 1992) ("Brooks Shoe also held that it was  
8 not unreasonable for Meyers to wait until the second patent (the '283 patent) issued to sue on the  
9 first and second patent together. ... Thus, for both the '797 and '283 patents, the reasonableness of  
10 Meyers' delay depends only on his activities during the four years between the date the '283 patent  
11 issued and the date Meyers filed his suits.") (citing Meyers v. Brooks Shoe Inc., 912 F.2d 1459, 1462  
12 (Fed Cir. 1459) (overruled on other grounds by Aukerman, 960 F.2d 1020) (holding that plaintiff  
13 who learned of infringement less than one year prior to issuance of divisional patent acted reasonably  
14 in waiting to sue until second patent was issued where plaintiff alleged that all accused products  
15 infringed both patents)). While IXYS could have asserted the '715 patent in January 1998,  
16 immediately upon recognizing (actually or constructively) that APT's devices possibly infringed,  
17 simultaneous suit on both IXYS patents "conserve[s] both the parties' and the courts' resources."  
18 Brooks Shoe, 912 F.2d at 1462. The court will thus date the beginning of the laches period to the  
19 issuance of the '419 patent on September 1, 1998. Because IXYS filed suit fewer than six years  
20 later, no presumption of unreasonableness and prejudice attaches here. Adelberg, 921 F.2d at 1271.

22 C. Unreasonable or Inexcusable Delay

23 A determination of what period of time constitutes an "unreasonable" or "inexcusable" delay  
24 is a question of fact specific to each case, and courts have provided little direct guidance on this  
25 issue. See Aukerman, 960 F.2d at 1032. It appears, nevertheless, that courts have typically found a  
26 period of delay "unreasonable" only when it substantially exceeded the four-year period at issue  
27 here. See, e.g., Adelberg, 921 F.2d at 1271 (eleven years of delay found to be unreasonable);  
28 Wanlass, 148 F.3d at 1336-37 (more than six years' delay unreasonable). By comparison, the  
Federal Circuit has held that a delay of four years was not unreasonable when that delay was

1 occasioned by explainable conduct on the part of the plaintiff, viz., “negotiating with his attorney,  
2 negotiating with other parties for licenses.” Asics, 974 F.2d at 1307. The Circuit has pronounced a  
3 three or four-year delay unreasonable only when that delay was accompanied by extraneous improper  
4 tactics or misleading conduct by the plaintiff. See, e.g., MCV, Inc. v. King-Seeley Thermos Co., 870  
5 F.2d 1568, 1572 (Fed. Cir. 1989) (plaintiff told defendant “that possessing some right to the patent  
6 was unimportant to him”); Rosemount, Inc. v. Beckman Instruments, Inc., 727 F.2d 1540, 1550 (Fed.  
7 Cir. 1984) (“Beckman informed Rosemount of the Model 960B shortly after the complaint was filed  
8 and long before trial. Rosemount’s charge that the 960B infringed was made three years after it was  
9 first informed.”). IXYS has not engaged in any comparable conduct.

10 IXYS’s first contact with APT regarding its belief that APT’s devices infringed IXYS’s  
11 patents took the form of a letter sent by IXYS’s CFO, Arnold Agbayani, to APT’s President and  
12 CEO on January 26, 2001. Zommer Dec., Exh. 12. The facts, even as proffered by IXYS, thus  
13 evince an unexplained period of delay, spanning the period from the issuance of the ‘419 patent on  
14 September 1, 1998, until the Agbayani letter of January 2001, and thus lasting approximately twenty-  
15 nine months. While the court is troubled by this expansive period of apparent inaction, and while  
16 further testing of APT products and deliberations with IXYS lawyers should not have taken twenty-  
17 nine months to complete, there nevertheless exists a triable issue of fact regarding whether IXYS’s  
18 dilatory filing—and the period of delay it caused—was unreasonable; in light of governing Federal  
19 Circuit precedent, the court cannot pronounce it unreasonable as a matter of law. See, e.g., Asics,  
20 974 F.2d at 1307. Because a rational fact-finder could find that IXYS did not unreasonably or  
21 inexcusably delay the filing of its complaint, this court must deny APT’s motion for summary  
22 judgment on this issue. Anderson v. Liberty Lobby, Inc., 477 U.S. at 248.

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25 **II. Prejudice**

26 Because this court has already held that there exists a material question of fact regarding  
27 whether IXYS unreasonably delayed the filing of its complaint, the court need not reach the question  
28 of whether APT has suffered prejudice from IXYS’s delay. Nevertheless, the court will briefly



1 consider APT's case for prejudice, as even such a brief review demonstrates that APT has not met its  
2 burden under the summary judgment standard.

3 A. Evidentiary Prejudice

4 APT asserts that IXYS's dilatory behavior has prejudiced APT in the litigation of this case  
5 due to the fact that documents have been lost and witnesses' memories have faded in the intervening  
6 years. See Aukerman, 960 F.2d at 1033. Yet APT has offered only legally insufficient proof of such  
7 prejudice. APT's claim that "many of the fact witnesses' recollections were diminished by this  
8 unreasonable delay," Pl. Mot., at 10, is not supported by so much a single citation to the voluminous  
9 factual record. Dr. Tsang's non-specific declaration that "APT's routine document retention caused  
10 older documents to be lost," including "evidence supporting APT's invalidity contentions," Tsang  
11 Dec. ¶ 10, is a legally inadequate means of establishing prejudice upon a motion for summary  
12 judgment. See Asics, 974 F.2d at 1308 ("Conclusory statements that there are missing witnesses,  
13 that witnesses' memories have lessened, and that there is missing documentary evidence, are not  
14 sufficient."). APT has not successfully demonstrated that it has suffered evidentiary prejudice.

15 B. Economic Prejudice

16 APT asserts that it has suffered economic prejudice in two separate fashions from IXYS's  
17 delay in bringing suit. Neither of these assertions is sufficient to carry APT's burden at summary  
18 judgment. First, APT claims that its year 2000 public stock offering ensnared many "innocent  
19 members of the investing public" within an infringement trap that IXYS triggered only several years  
20 after it became aware of the activity that would later form the basis for its accusations. APT has not  
21 offered any evidence to indicate that this public offering would not have taken place had IXYS sued  
22 APT much earlier; indeed, it has not even advanced this argument. APT's shareholders may  
23 eventually suffer some economic harm due to IXYS's suit, but APT has adduced no reason to  
24 believe that this harm to the shareholders (and to APT itself) has been augmented by IXYS's filing  
25 delay, and thus no reason to find that APT has suffered prejudice on these grounds. See Gasser  
26 Chair Co., Inc. v. Infanti Chair Mfg. Corp., 60 F.3d 770, 775 (Fed. Cir. 1995) ("We reiterate that a  
27 change in the economic position of the infringer during the period of delay must be as a result of the  
28

1 delay; the infringer must prove that the change in economic position would not have occurred had  
2 the patentee sued earlier.”) (citing Aukerman, 960 F.2d at 1033).

3 Second, APT points to the substantial investment it has made over the last five years in  
4 research and development of product lines that now stand accused of infringement. See Tsang Dec.  
5 ¶ 11 (“APT estimates that it has invested roughly \$1,000,000 per year in research and development  
6 of its dual-layer metal power MOSFET devices over the past five years.”). APT asserts, not  
7 improbably, that it would never have made this investment in developing (and producing) potentially  
8 infringing devices had it known of IXYS’s intention to sue at an earlier date. Yet this contention is  
9 belied by the fact that APT has continued to develop and market its allegedly infringing products  
10 during the pendency of this litigation despite the fact that, by Dr. Tsang’s own admission, APT has  
11 already developed a quick, inexpensive means of producing equivalent devices that would be far less  
12 likely to be found to infringe. See Catalano Dec., Exh. 2, at 789-791 (Tsang Dep.). APT’s decision  
13 not to implement this alternative design casts serious doubt upon its claim that it would have devoted  
14 its research and development dollars elsewhere had IXYS’s lawsuit come to the fore at an earlier  
15 date. Indeed, APT has always maintained that the IXYS patents are invalid, and APT’s actions  
16 betray no indication of an intention to hedge against the threat that a court might find otherwise. See  
17 id. at 801 & Exh. 181 (opinion letter concluding that IXYS’s patents are invalid). By consequence, a  
18 reasonable juror might well conclude that APT would similarly have refused to change its  
19 engineering practices even in the event that IXYS had filed suit at an earlier date. A material issue  
20 of fact exists on this question, and summary judgment would be improper.

21  
22  
23 CONCLUSION

24 For the reasons set forth above, the court DENIES defendant’s motion for summary  
25 judgment.

26 IT IS SO ORDERED.

27 Dated: *June 15, 2007*

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MARILYN HALL PATEL  
Chief Judge  
United States District Court

Northern District of California

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**ENDNOTES**

1. The background facts are drawn from the parties' moving papers, unless otherwise noted.
2. The court views these documents as by far the most significant among all of the pages attached as Exhibit 5 to the Helou Declaration. Because IXYS—through the person of Dr. Zommer—has essentially authenticated and explained these pages, the court need not address the remainder of IXYS's objections to the introduction of these documents into the record for purposes of this motion.